

Having thus described the invention, what is claimed as new and secured by Letters Patent is:

1. A system for tracking an object during its operative life, the object being assigned an identifier stored on a medium operatively mounted to the object, the system comprising:
 - at least one means, at a service provider, for writing service information to the medium, the service information characterized by at least one service operation on the object;
 - 10 at least one means, at a service provider, for reading service information from the medium;
 - means for generating performance information characterized by at least one object-related performance characteristic;
 - 15 a system database having means for storing, in association with the object through the identifier, the performance information on the medium, the performance information being, and having means for storing, in association with the object through the identifier, the service information on the medium; and
 - 20 a processor, operatively coupled to the database, having means for tracking the object, associated with the identifier, and having means for managing the service information and the performance information associated with the object through the identifier;
 - 25 wherein the at least one means for reading and the at least one means for writing are in communication with the processor.
- 30 2. The system as in claim 1, wherein the object is a tire, and wherein the object-related performance characteristics are tire-related performance characteristics.

3. The system according to claim 1 or 2, wherein the medium is a radio frequency identification (RFID) tag.

5 4. The system as in claim 1, 2, or 3, wherein the processor further comprises means for assigning the identifier to the object based on a manufacturer.

10 5. The system as in claim 4, wherein the system further comprises a registration database, operatively coupled to the processor, and wherein the registration database has means for storing the performance information in the registration database in association with the manufacturer.

15 6. The system as in claim 1, 2 or 3, wherein the processor further comprises means for assigning the identifier to the object based on a manufacturer model number.

20 7. The system as in claim 6, wherein the database further comprises a registration database, operatively coupled to the processor, wherein the registration database has means for storing the performance information in the registration database in association with the manufacturer model number.

25 8. The system as in claim 1, wherein the reading means is a device for encoding the medium.

9. The system as in claim 8, wherein the writing means is included in the device for encoding the medium.

30 10. The system as in claim 1, wherein the writing means is a device for encoding the medium.

11. The system as in claim 2, wherein each object-related performance characteristics is selected from a group consisting of: pressure, temperature, mileage, tread depth, recall date, warranty, and age.

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12. A method for tracking an object during its operative life, comprising:

- a) associating a unique identifier with an object;
- b) encoding a medium operatively mounted to the object
10 with the identifier,
- c) at a service provider, reading the identifier from the medium;
- d) associating performance information with the object through the identifier, the performance information being
15 characterized by at least one object-related performance characteristic;
- e) at a service provider, generating service information characterized by at least one service operation on the object;
- f) storing the service information and the performance information in a system database in association with the object through the identifier; and
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- g) monitoring the performance information and the service information stored in the database for object tracking.
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13. The method as in claim 12, wherein performance information generated in step c) is generated by the service provider for each service operation.

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14. The method as in claim 12, wherein performance information associated with the object and generated in step c) is retrieved from the system database.

15. The method as in claim 12, wherein performance information associated with the object and generated in step c) is retrieved from a registration database.

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16. The method as in claim 12, wherein the step b) comprises:
b1) associating the identifier with the service provider
encoding the identifier onto the medium.

10 17. The method as in claim 12, wherein step d) further includes: updating the performance information with performance-related information from a manufacturer.

15 18. A method of encoding a medium for identifying an object comprising:

20 a) at a service provider, generating an identifier based on at least one characteristic associated with the object;
 b) updating a list of object identifiers, stored at a database accessible at the service provider, to prevent a conflict in the list of object identifiers;
 c) writing the identifier to the medium operatively coupled to the object; and
 d) registering the object in a central database, associated with the service provider, for monitoring the
25 object using the identifier.

19. The method as in claim 18, wherein the medium is a radio frequency identifier (RFID) tag, whereby the identifier is written as a unique 96-bit number.

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20. The method as in claim 19, wherein the unique 96-bit number is divided into a plurality of numerical number blocks,

and each numerical number block representing a selected characteristic associated with the object.

21. A medium encoded for identifying an object wherein

5 at least one characteristic encoded therein is selected from the group consisting of: a model of the object, a year of production of the object, a physical characteristic of the object, a service provider for the object, a manufacturer of the object, and an object identifier.

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22. A device for encoding a medium with an object identifier at a service provider, having stored thereon, computer-readable and computer-executable instructions which, when executed by a processor, cause the processor to perform steps

15 comprising:

- a) generating an identifier based on at least one characteristic associated with the object;
- b) updating a list of object identifiers, stored at a database accessible at the service provider, to prevent a conflict in the list of object identifiers;
- c) writing the identifier to the medium operatively coupled to the object; and
- d) registering the object in a central database, associated with the service provider, for monitoring the

25 object using the identifier.

23. The device as in claim 22, wherein the object is a tire.

24. The device as in claim 22, wherein at least one

30 characteristic is chosen from the group consisting of: a model of the object, a year of production of the object, a physical characteristic of the object, a service provider for the

object, a manufacturer of the object, and an object identifier.

25. A database for tracking an object during its operative life, the object being assigned an identifier stored on a medium operatively mounted to the object, the database being constructed and arranged for use with at least one means, at a service provider, for writing service information to the medium and for use by a processor, the service information characterized by at least one service operation on the object, for use with at least one means, at a service provider, for reading service information from the medium, and for use with a processor, operatively coupled to the database, having means for managing the service information and the performance information associated with the object through the identifier, and having means for tracking the object using the service information and the performance information, the database comprising:

means for generating performance information and for storing, in association with the object through the identifier, the performance information on the medium, the performance information being characterized by at least one object-related performance characteristic, and

means for storing, in association with the object through the identifier, the service information on the medium.

26. A processor for tracking an object during its operative life, the object being assigned an identifier stored on a medium operatively mounted to the object, the processor for use with at least one means, at a service provider, for writing service information to the medium, the service information characterized by at least one service operation on the object, for use with at least one means, at a service

provider, for reading service information from the medium, and for use with a system database having means for generating performance information and for storing, in association with the object through the identifier, the performance information on the medium, the performance information being characterized by at least one object-related performance characteristic, and having means for storing, in association with the object through the identifier, the service information on the medium, the processor comprising:

- 10 means for managing the service information and the performance information associated with the object through the identifier; and
 means for tracking the object using the service information and the performance information;
- 15 wherein the at least one means for reading and the at least one means for writing are in communication with the processor.